

REMARKS

The Office Action dated March 10, 2008, has been received and carefully reviewed. The preceding amendments and following remarks form a full and complete response thereto. Claims 1-11 and 13-15 have been amended. Support for amendments can be found, inter alia, at ¶¶ 52, 90, 93, and 94 and in figures 3 and 12. No new matter has been added. Accordingly, claims 1-19 are pending in this application and are submitted for consideration.

Claims 1-7 and 12-15 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent Application Publication No. 2001/0050764 by Shirai ("Shirai '764"). Applicants respectfully traverse the rejection on the basis that claims 1-7 and 12-15 recite subject matter not disclosed by Shirai '764.

Claim 1, upon which claims 2-3, 5-7, and 12-15 depend, recites a device for measuring the distance to far-off and close objects using laser beams modulated and emitted by the device and reflected off the object. The device comprises a common objective for emitting the laser beams and for collecting the rays that comprise the laser beams reflected by the objects and the background rays. Additionally, the device comprises a means for selecting rays of a cohesive cross-sectional region of a bundle of collected rays. The means has an opening inside of which is a first section and at least one second section. Laser beams reflected by a far-off object are coordinated with the first section and laser beams reflected by a close object are coordinated with the at least one second section. Only a fraction of the collected laser beams reflected by the close object are selected via the second section. The device also comprises a

receiver for converting selected rays into a single electrical signal by means of which distance can be determined with the aid of the propagation velocity of optical rays. Additionally, at least one of the second section has the dimension of the first section.

Claim 4 recites a device for measuring the distance to far-off and close objects that reflect with orientation and by which laser beams, which are modulated and emitted by the device and are in the form of a decollimated bundle of rays, are reflected. The device comprises an objective for collecting rays from the laser beams and rays reflected by the objects and background rays (28). The device also comprises a further objective for emitting laser beams and a means for selecting rays of a cohesive cross sectional region of a bundle of collected rays. The means has an active detector area housing a first section and a second section. The laser beams reflected by a far-off object are coordinated with the first section and the laser beams reflected by a close object are coordinated with the second section. Only a fraction of the collected laser beams reflected by the close object being selected via the at least one second section. Additionally, the device comprises a receiver for converting selected rays into a single electrical signal by means of which the distance (d) can be determined with the aid of the propagation velocity of optical rays. The means are formed in such a way that the second section has at least the dimension of the first section.

As a result of the claimed configurations, the invention has the advantages of a simplified design. The claimed device requires neither a motor to drive the means nor a controller to control the means. As a result, fewer parts are required to manufacture the product than would be required to manufacture the instrument disclosed in Shirai '764.

Additionally, the claimed device would be more robust than the Shirai '764 instrument and, therefore, have a longer operational life span.

Shirai '764 discloses a surveying instrument having an optical distance meter. See Shirai '764 at ¶ 2. To separate long-distance and short distance light, Shirai '764 discloses the use of a light shield mask 70, which can be positioned at a long distance position, a first short-distance position, and a second short-distance position. See Shirai '764 at ¶ 95; Figs. 8A-9C. When the light shield mask 70 is positioned in the long-distance position A, the small aperture 70a is positioned immediately below the incident end surface of the third light-receiving optical fiber 26f so that the measuring light reflected by the light-receiving mirror 21b is incident on only the incident end of the surface of the third light-receiving optical fiber. See Shirai '764 at ¶ 95; Figs 8A, 9A. Similarly, when the light shield mask 70 is positioned in the first short-distance position B, the middle aperture 70b is positioned immediately below the incident end surface of the first light-receiving optical fiber 26m and when the light shield mask 70 is positioned in the second short distance position C, the large aperture 70c is positioned immediately below the incident end surface of the second light receiving surface. See *Id.*

Shirai '764 fails, however, to disclose a device for measuring the distance to far-off and close objects comprising a means for selecting rays, wherein the means includes an opening within which a first section and at least one second section, as recited by claim 1. The Office seems to equate each aperture of Shirai '764 to either a first section or a second section. See Office Action at 2. Assuming, *arguendo*, that each aperture is analogous to either a first section or a second section, then Shirai '764

would still fail to disclose first and second sections within the same opening as claim 1 requires. Thus, Shirai '764 fails to disclose each and every element of claim 1. Applicants, therefore, respectfully request withdrawal of the rejection of claim 1 and its dependent claims 2-3, 5-7, and 12-15.

Claim 4 recites a device for measuring distance to far-off and close objects comprising a means having an active detector area that houses a first section and a second section. As discussed above with regard to claim 1, Shirai '764 fails to disclose first and second sections housed within the same detector area. Accordingly, Claim 4 is patentable over Shirai '764 because Shirai '764 fails to disclose each and every element of claim 4. Applicants, therefore, respectfully request withdrawal of the rejection of claim 4.

Claims 18 and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Shirai '764. Applicants respectfully traverse the rejection on the basis that claims 18 and 19 recite subject matter neither disclosed nor suggested by Shirai '764. For instance, claims 18 and 19 are patentable over Shirai '764 for at least the same reasons stated above with respect to claim 1, from which they depend. Applicants, therefore, respectfully request the withdrawal of the rejection of claims 18 and 19.

Claims 9 and 10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Shirai '764 in view of U.S. Patent No. 5,116,124 to Huttman ("Huttman"). Applicants respectfully traverse the rejection on the basis that claims 9 and 10 recite subject matter neither disclosed nor suggested by the combination of Shirai '764 and Huttman.

Claims 9 and 10, are patentable over Shirai '764 for at least the same reasons stated above with respect to claim 1, from which they depend. The Office cites Huttman, which relates to an apparatus for the measurement of the parameters of atmospheric visibility or optical density, for its purported disclosure of a multimode optical fiber. Huttman, however, fails to remedy the deficiencies of Shirai '764 because it too fails to disclose an opening inside of which is located a first section and at least one second section. Applicants, therefore, respectfully request withdrawal of the rejection of claims 9 and 10.

Claims 11, 16, and 17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Shirai '764 in view of U.S. Patent Application Publication No. 2002/0044270 by Shirai ("Shirai '270"). Applicants respectfully traverse the rejection on the basis that claims 11, 16, and 17 disclose subject matter neither disclosed nor suggested by the combination of Shirai '764 and Shirai '270 (collectively "the Shirai references").

Claims 11, 16, and 17 are patentable over Shirai '764 for the reasons stated above with respect to claim 1, from which they depend. The Office cites Shirai '270, which relates to an electronic distance meter, for its purported disclosure of a means for selection in the form of a diaphragm. See Office Action at 5. Even assuming, *arguendo*, that Shirai '270 discloses what the Office asserts it does, Shirai '270 still fails to remedy the deficiencies of Shirai '764 because Shirai '270 fails to disclose an opening inside of which is located a first section and at least one second section. Accordingly, the combination of the Shirai references fails to disclose or suggest each

and every element of claims 11, 16, and 17. Applicants, therefore, respectfully request withdrawal of the rejections of claims 11, 16, and 17.

In view of the above, all rejections have been sufficiently addressed. Applicants submit that the application is now in condition for allowance and request that claims 1 - 19 be allowed and this application passed to issue.

In the event that this paper is not timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account No. 02-2135.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the Applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

Respectfully submitted,

Date: July 10, 2008

By: _____

Brian A. Tollefson
Attorney for Applicants
Registration No. 46,338
ROTHWELL, FIGG, ERNST & MANBECK, p.c.
Suite 800, 1425 K Street, N.W.
Washington, D.C. 20005
Telephone: (202)783-6040